

Appl. No. 10/634,196
Amendment dated May 2, 2005
Reply to Office Action of February 1, 2005

REMARKS

Applicants have received and reviewed an Office Action dated February 1, 2005. By way of response, Applicants have canceled claim 12 without prejudice, amended claims 1, 13, 14, and 28, and added claims 29-34. The amended and newly presented claims find support in the specification at least at page 12, lines 14-18, page 13, lines 15-16, and claim 12 as originally filed. Claims 1-34 are pending. No new matter is presented. Applicants submit that the pending claims are supported by the specification.

For the reasons given below, Applicants submit that the pending claims are in condition for allowance and notification to that effect is earnestly solicited.

Species Election Requirement

Applicants acknowledge their election of the species of Formula III, claims 1-7 and 12-28. Applicants, at this time, have not canceled claims 8-11. Applicants respectfully note that should the Examiner allow a generic claim, claims 8-11 are also allowed.

Smith et al. in View of Baker et al.

The Examiner rejected claims 1-7, 15-20, 22-25, and 28 under 35 U.S.C. § 103(a) as being obvious over Smith et al. (US 6,617,303) in view of Baker et al. (US 2002/0119907). Although this rejection has not been applied to the newly presented claims, it is discussed insofar as it might apply. Applicants respectfully traverse this rejection.

Claims 1 and 28 have been amended to include the subject matter of claim 12. Because the Office Action does not reject claim 12 as being obvious over Smith et al. in view of Baker et al., this rejection is rendered moot by Applicants' amendment.

Claims 2-7, 15-20, and 22-25 depend from claim 1, an allowable base claim. For at least this reason, Applicants respectfully contend these claims are also free of this rejection.

Newly presented independent claim 29 recites that "the composition comprises alkoxylated amine and carboxylic acid antimicrobial agent at a ratio in the range of about 1:1 to about 9:1". The references cited in this rejection do not even mention such a ratio much less disclose or suggest such a ratio. Therefore, the cited references do not teach or suggest the claimed invention.

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Accordingly, based on the foregoing differences, Applicants respectfully submit that the references cited in this rejection neither teach nor suggest the presently claimed compositions and methods and withdrawal of this rejection is respectfully requested.

Baker et al. in View of Smith et al.

The Examiner rejected claims 1-7, 12-17, 19-20, 22-26, and 28 under 35 U.S.C. § 103(a) as being obvious over Baker et al. (US 2002/0119907) in view of Smith et al. (US 6,617,303). Although this rejection has not been applied to the newly presented claims, it is discussed insofar as it might apply. Applicants respectfully traverse this rejection.

The Office Action asserts it would have been obvious to use an alkoxylated amine surfactant in the cleaning composition taught by Baker et al., because Smith et al. teach the addition of alkoxylated amine surfactants to detergent compositions, and Baker et al. teach the use of numerous types of nonionic surfactants, which would encompass alkoxylated amine surfactants.

Applicants have unexpectedly discovered that a carboxylic acid antimicrobial agent in combination with an alkoxylated amine in the presently claimed ratios and an acidulant can result in a physically stable composition that does not separate (see pages 39-55, Examples 1 and 2). The use of this composition at this ratio surprisingly results in a stable composition with a superior cleaning power (page 45, Table 5). Neither the Baker et al. reference nor the Smith et al. reference disclose or suggest a physically stable composition that remains in a single phase, and thus do not render the presently claimed invention obvious.

Amended claims 1 and 28 invention recite a composition that includes a carboxylic acid antimicrobial agent, an alkoxylated amine, and an acidulant. For the reasons that follow, the presently claimed invention is not obvious over Baker et al. in view of Smith et al. because neither reference alone, or in combination, sufficiently disclose, suggest the presently claimed invention. Further, there is no motivation to combine the alkoxylated amine surfactants disclosed in the Smith et al. reference into the compositions disclosed by the Baker et al. reference.

The Baker et al. reference discloses the a composition containing one or more "benefit agents" to disinfect, deodorize, and clean shoes (page 1, paragraph [0002], page 4, paragraph

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[0077]). The composition is "essentially free of material that would soil or stain the shoes" (page 4, paragraph [0088]). The Baker et al. reference discloses the use of any of a variety of antimicrobial agents, such as a carboxylic acid antimicrobial agent, in combination with any surfactant (page 7, paragraph [0123], page 10, paragraph [0171], page 28, paragraph [0396-0397]). Baker et al. disclose that "a wide range of surfactants can be used in the treating compositions of the present invention" (page 11, paragraph [0184]). Baker et al. fail to disclose the use of an acidulant. Rather, the invention in Baker et al. is preferably carried out at a neutral to slightly basic pH (page 6, paragraph [0108]).

There is no suggestion in Baker et al. to specifically make use of a carboxylic acid antimicrobial agent as presently claimed. Baker et al. discloses a myriad of ingredients that can be used as "benefit agents," and there is no suggestion to make use of a carboxylic acid antimicrobial agent as opposed to any antimicrobial listed in the patent application. Likewise, Baker et al. does not disclose the use of alkoxylated amine surfactants as recited by the present claims, but only generally discloses the use of several "nonionic surfactants" (see page 12-13).

Smith et al. focus on cleaning (detergent performance), not antimicrobial action. Smith et al. disclose use of an anionic surfactant composition containing alkoxylated amine surfactants, such as ethoxylated amines (see col. 1, lines 15-20). Smith et al. fail to teach use of both any antimicrobial agent and an acidulant, and specifically does not make use of an acidic composition. In at least one embodiment of Smith et al., the amount of ethoxylated surfactant is sufficient to "neutralize the acid functionality of the anionic surfactant."

Smith et al. fail to disclose the presently claimed invention, and teach away from the compositions as presently claimed. First, Smith et al. does not teach a composition that utilizes an antimicrobial agent used to disinfect and reduce antimicrobial populations. The presently claimed invention is specifically directed at sanitization. Second, Smith et al. fail to teach or even suggest use of an acidulant to maintain an acidic pH. In fact, the composition in Smith et al. is neutralized to eliminate the acid functionality of the anionic surfactant. The presently claimed invention utilizes acidulants to "decrease the pH" (page 13). Smith et al. teaches away from using an acidulant, thus it cannot render this invention obvious.

There is also no suggestion to combine Baker et al. into the invention of Smith et al. in order to achieve the presently claimed invention. Baker et al. is directed towards "compositions

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for treating shoes, especially leather-containing shoes" (abstract). Smith et al. is directed towards compositions useful in the "formulation of heavy duty laundry detergents, herbicide emulsifiers, hard surface cleaners, bathroom cleaners, all purpose cleaners, car wash detergents, janitorial cleaners and light duty liquid detergents" (col. 2, lines 27-31). Such disclosure does not motivate one skilled in the art to employ the Baker et al. compositions effective for cleaning leather with components useful in heavy duty cleaners.

Newly presented independent claim 29 recites that "the composition comprises alkoxylated amine and carboxylic acid antimicrobial agent at a ratio in the range of about 1:1 to about 9:1". The references cited in this rejection do not even mention such a ratio much less disclose or suggest such a ratio. Therefore, the cited references do not teach or suggest the claimed invention.

Accordingly, based on the foregoing differences, Applicants respectfully submit that the references cited in this rejection neither teach nor suggest the presently claimed compositions and methods and withdrawal of this rejection is respectfully requested.

WO 95/04459 in View of Smith et al.

The Examiner rejected claims 1-7, 12-17, 18-19, 22-25 and 28 under 35 U.S.C. § 103(a) as being obvious over WO 95/04459 (the '459 publication) in view of Smith et al. (US 6,617,303). Although this rejection has not been applied to the newly presented claims, it is discussed insofar as it might apply. Applicants respectfully traverse this rejection.

The Office Action asserts that Smith et al. is relied on as set forth in the previous rejections. The Office Action asserts the '459 publication discloses the use of an octanoic carboxylic acid and a sulfur containing compound as an antimicrobial agent. The Office Action also asserts the reference discloses the use of acidulants useful in lowering the pH of the composition.

The Office Action asserts that it would have been obvious to use an alkoxylated amine surfactant in the cleaning composition taught by the '459 publication, because the broad teachings of the '459 publication in combination with Smith et al. suggest a composition containing a carboxylic acid antimicrobial agent, alkoxylated amine, and the other requisite components of the composition in the specific proportions as recited by the instant claims.

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Amended claims 1 and 28 invention recite a composition that includes a carboxylic acid antimicrobial agent, an alkoxylated amine, and an acidulant. Applicants have unexpectedly discovered that a carboxylic acid antimicrobial agent in combination with an alkoxylated amine in the presently claimed ratios and an acidulant can result in a physically stable composition that does not separate (see pages 39-55, Examples 1 and 2). The use of this composition at this ratio surprisingly results in a stable composition with a superior cleaning power (page 45, Table 5). Neither the '459 publication nor the Smith et al. reference disclose or suggest a physically stable composition that remains in a single phase, and thus do not render the presently claimed invention obvious.

The arguments made regarding Smith et al. are incorporated herein by reference.

The '459 publication discloses an invention consisting of a "carrier and an antimicrobial agent of octanoic carboxylic acid and a sulfur compound" (page 6, lines 24-26). The invention "is based on a discovery that a specific carboxylic acid, octanoic acid when combined with a sulfur containing compound" provides sanitizing and disinfecting capabilities (page 7, lines 33-38). The composition of the '459 publication may also include an acidulant (page 7, line 21). The '459 publication also generally discloses the use of surfactants in a cleaning composition.

The '459 publication, in view of Smith et al., does not render the presently claimed invention obvious because the presently claimed invention is not disclosed or suggested by either reference alone or in combination, and there is no motivation to combine the references. Further, the '459 publication and Smith et al. teach away from the presently claimed invention.

The '459 publication fails to disclose or suggest the presently claimed invention. The reference fails to disclose or suggest use of a carboxylic acid in the absence of sulfur, and fails to disclose or suggest the use of an alkoxylated amine in combination with a carboxylic acid antimicrobial agent. The general disclosure of the use of surfactants fails to achieve this goal, particularly in light of the fact that the '459 publication, while listing a multitude of surfactants, fails to mention use of an alkoxylated amine (see page 19, lines 12-18, page 20, and page 21, lines 1-14).

The '459 publication teaches away from using an antimicrobial agent without sulfur. The '459 publication requires a sulfur containing compound to successfully disinfect surfaces. In fact, a composition without sulfur is discouraged, "carboxylic acid based sanitizers often have

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undesirable organoleptic properties exemplified by a "goat-like" odor (page 5, lines 35-38). The present invention does not use sulfur as part of the antimicrobial agent.

There is no motivation to modify the '459 publication to incorporate the compositions disclosed in Smith et al. to obtain the presently claimed invention. There is no suggestion in Smith et al. that the compositions taught therein would be useful when combined with the '459 publication. Smith et al. is preferably used at a higher pH, and is not an antimicrobial cleaning composition. One skilled in the art would not, when attempting to create a more powerful antimicrobial solution, look to Smith et al. to find the presently claimed solution.

The '459 publication teaches away from incorporating the disclosures in Smith et al. Smith et al. disclose use of an alkoxylated amine surfactant, while the '459 publication only discloses the use of a carboxylic acid antimicrobial agent and surfactants in general. The '459 publication lists various surfactants that are all hydroxylated, copolymers, or hardening agents; it fails to disclose or suggest the use of an alkoxylated amine.

There is also no motivation to combine these two references, and the knowledge in the relevant art teaches away from such a combination. Based on the prior art knowledge in the art at the time of invention, one would not have combined a carboxylic acid antimicrobial agent with an alkoxylated amine due to their reactivity. At the time of the invention, conventional thought was in agreement that use of an amine surfactant in combination with a carboxylic acid antimicrobial agent would fail to provide a cleaning solution that would not inhibit antimicrobial activity. This motivates against combining the cited references.

In sum, neither reference alone or in combination teaches the instantly claimed invention, and there is no motivation to combine the two references.

Accordingly, based on the foregoing differences, Applicants respectfully submit that the references cited in this rejection neither teach nor suggest the presently claimed compositions and methods and withdrawal of this rejection is respectfully requested.

The Wulff et al. and Penninger et al. References

The Examiner rejected claim 21 under 35 U.S.C. § 103(a) as being obvious over Smith et al. (US 6,617,303) in view of Baker et al. (US 2002/0119907), or Baker et al. in view of Smith et al., as applied to the rejected claims above, and further in view of Wulff et al. (US 5,962,399).

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The Examiner rejected claim 27 under 35 U.S.C. § 103(a) as being obvious over Baker et al. in view of Smith et al. as applied to claims 1-7, 12-17, 19-20, 22-26 and 28, and further in view of Penninger et al. (US 6,228,827). Although these rejections have not been applied to the newly presented claims, they are discussed insofar as they might apply. Applicants respectfully traverse these rejections.

Applicants rely on their previous arguments regarding Smith et al. and Baker et al. in response to this rejection. Because Wulff et al. and Penniger et al. fail to remedy the shortcomings of Smith et al. and Baker et al., these rejections cannot be maintained.

Accordingly, based on the foregoing differences, Applicants respectfully submit that the references cited in this rejection neither teach nor suggest the presently claimed compositions and methods and withdrawal of this rejection is respectfully requested.

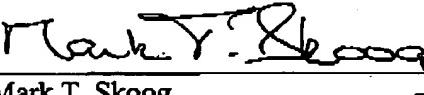
Summary

In summary, Applicants submit that each of claims 1-34 are in condition for allowance, and notification to that effect is earnestly solicited. The Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below, if the Examiner believes that doing so will expedite prosecution of this application.

Respectfully submitted,

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